

150 Mineral Spring Drive Dover, New Jersey 07801 Phone (201) 361-3600

LETTER OF TRANSMITTAL

Job No.:

			ne (201) 361-3600 ((201) 361-3800		Date: Attention:	10/30/93	94039 T1
		ra.	X (201) 301-3800		Re:	Joseph J. Nowak	
					Ke.	Hexcel Corporation	
To:	NJDEP-I	BEECRA				Lodi Borough, Bergen Co	unty, NJ
	401 East	State Stree	et		 	ISRA Case No. 86009	
	Trenton,	NJ 08625					
WE	ENCLO	SE THE F	OLLOWING:	VIA:		Courier /Hand Delivered First Class Mail	Overnight Express
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Rem	arks:						
COI	PY TO:	A. Willia	m Nosil		SIGNED	Mayore Marjorie	A Poits
		Lisa M. B	romberg			Marjorie	e Piette/
		James Hig	gdon			•	

Date:

SDMS Document

If enclosures are not as noted, kindly notify us at once.



150 Mineral Spring Drive Dover. New Jersey 07801 201 361-3600 FAX 361-3800

INDUSTRIAL SITE
EVALUATION ELEMENT
CNO28
TRENTON, N.J. 08625

October 27, 1995

Joseph J. Nowak
New Jersey Department of Environmental Protection
Bureau of Environmental Evaluation and Cleanup Responsibility Assessment
401 East State Street
Trenton, NJ 08625

OCT 3 1 1995

SUBJ: Hexcel Corporation
Lodi Borough, Bergen County, New Jersey
ISRA Case No. 86009
GEO File No. 94039

Dear Mr. Nowak:

On behalf of Hexcel Corporation (Hexcel), the following is the progress report of activities carried out during July, August and September of 1995. This quarterly report is prepared in accordance with the Industrial Site Recovery Act (ISRA) requirements for the former Hexcel facility in Lodi, New Jersey.

The following topics are discussed in this progress report:

- 1. Ground Water/DNAPL/LNAPL Monitoring
 - a) Quarterly Monitoring
 - b) Monthly Monitoring
- 2. Product Recovery Program
 - a) Modifications to Product Recovery Program
 - b) DNAPL Recovery
 - c) LNAPL Recovery
- 3. Ground Water Treatment System
 - a) Sewer Connection
 - b) Evaluation and Testing of Ground Water Recovery System
 - c) Treatment of Basement Seepage Water
- 4. Off-Site Investigation
- 5. Waste Disposal Documentation
- 6. Schedule and Cost Estimates

1. Ground Water/DNAPL/LNAPL Monitoring

This section includes the results of quarterly monitoring performed in July 1995, and monthly monitoring performed in August and September 1995. Modifications to the New Jersey Department of Environmental Protection (NJDEP) approved "Groundwater/DNAPL/LNAPL Monitoring Plan" prepared by Killam Associates had been presented in our progress report dated October 24, 1994. The modifications were approved by the NJDEP in its June 12, 1995 letter. Sections 1a and 1b provide details for quarterly and monthly monitoring respectively.

- 1a. Hexcel conducted quarterly ground water elevation, DNAPL and LNAPL monitoring on July 6, 1995 in accordance with the monitoring plans. Results are tabulated in Table 1. Figures 1 and 2 illustrate shallow and deep ground water elevation contours respectively. Contour Map Reporting Forms are enclosed for each of the contour maps. Table 2 contains a summary of well construction data to accompany the Contour Map Reporting Form for Figure 1. Figures 1 and 2, Tables 1 and 2, and the reporting forms are located in Appendix A.
- 1b. On August 10 and September 13-15, 1995, Hexcel conducted monthly DNAPL and LNAPL monitoring in accordance with the monitoring plans and modifications approved by the NJDEP in its June 12, 1995 letter. Additionally, the following modifications were made to the monthly monitoring plan in the third quarter:
 - RW6-3: Included in the monthly monitoring from August 1995 based on the solubility calculations which were provided in our July Progress Report.
 - CW-15: Included in the monthly monitoring from September 1995 after DNAPL was detected in the well when an inventory of the pumping equipment installed in the recovery well was taken on August 30, 1995.

Results for August and September monthly monitoring are provided in Tables 3 and 4 located in Appendix B.

Hexcel will continue to modify the monthly monitoring by the addition or deletion of wells in accordance with the approved plan.

2. Product Recovery Program

This section includes results for the temporary product recovery program currently being implemented at the site. The details are discussed in the following subsections.

2a. Modifications to Product Recovery Program

In response to NJDEP's letter of June 12, 1995, Hexcel had resumed weekly product recovery on June 26, 1995 and also added product recovery at the numerous well locations specified in the July Progress Report. The additional wells increased the time and cost for product recovery substantially without significantly increasing the volume of product recovered. Beginning the third week of September, Hexcel modified the weekly product recovery program. The modifications were communicated to the NJDEP in our letter dated September 21, 1995 and are provided below. Though the weekly product recovery efforts will continue, the wells included in the program will be revised based on the criteria presented below.

- From "weekly product recovery" to "recovery at the time of monthly monitoring": Any well which has no measurable recovery for three concurrent recovery rounds. For the purposes of product collection, quantities greater than 0.1 gallon (approximately 1 cup) are considered to be measurable. We have found it impractical to separate product from water when the quantity of product in the mixture is less than a cup.
- From "monthly" to "weekly" product recovery: Any well that yields a measurable quantity of product during recovery.
- Hexcel will deviate from the above guidelines when it is deemed appropriate based on current and historical observations. For example, well CW-7 has failed to have measurable recovered product for the last eight weeks; yet its historical tendency to have significant amounts of product justifies its continuation in the weekly recovery program. CW-7 will be moved to the monthly monitoring program if no measurable amount of LNAPL is recovered from it for four more weeks.

2b. DNAPL Recovery

A temporary DNAPL recovery program, consisting of manually recovering product from affected wells on a weekly basis, was initiated on October 20, 1994. After one month, the program's frequency was reduced to twice a month due to a reduction in the quantity of product recovered. Product recovery continued at the rate of at least twice a month through the week of June 19, 1995. In accordance with the NJDEP's June 12, 1995 letter, weekly product recovery was resumed the week of June 26, 1995. Results are summarized in Table 5, located in Appendix C.

We had specified in the July Progress Report that the wells containing DNAPL, even at trace quantities, would be fitted with tubing to allow for product recovery using a peristaltic pump. Product recovery from MW-6, which was fitted with tubing on March 2,



1995, had indicated that pumping was a more efficient and effective method for recovery than using a bailer. Additional monitoring wells (MW-8, MW-26, RW6-1, RW7-1, RW7-4, RW7-5, CW-12 and CW-16), which had indicated presence of DNAPL, were fitted with tubing on August 20, 1995.

DNAPL was detected in CW-15 when all the recovery wells on site were opened on August 30, 1995 for taking an inventory of the pumping equipment installed in the wells. Approximately 0.5 gallons of DNAPL was bailed from the well. Subsequently, CW-15 has been included in the weekly product recovery program. CW-15 was fitted with tubing on October 13, 1995.

Note that, for the present, basement well point PB-2 (details in Section 3b) has been included in the weekly product recovery due to presence of measurable amounts of product in the well point.

We have attempted to pump DNAPL from the above-mentioned wells every week. A review of Table 5: Summary of Product Collection (DNAPL) indicates that we have not recovered measurable quantities of DNAPL from most of the wells for three weeks or more even with a peristaltic pump. Hexcel has modified the weekly program because increased product recovery efforts did not yield significant additional volumes of product recovered. The modifications were communicated to the NJDEP in our letter dated September 21, 1995 and are outlined in Section 2a.

2c. LNAPL Recovery

Results for LNAPL recovery are summarized in Table 6 located in Appendix C. Significant quantities of LNAPL were recovered from MW-6 during the third quarter of 1995. LNAPL had not been detected in MW-6 prior to June 28, 1995. An absorbent pad was placed in the well following detection of LNAPL. Subsequently, weekly LNAPL recovery has been performed at MW-6. Due to the quantities of LNAPL recovery from the well, the pad was replaced with a hydrophobic passive recovery device on September 6, 1995.

During the third quarter of 1995, absorbent pads were placed in 10 more wells, which had indicated presence of LNAPL, in addition to CW-7 and MW-6. These wells are: MW-8, MW-23, RW1-1, RW6-1, RW6-3, RW7-4, RW7-5, CW-12, CW-15 and CW-16. Following placement of LNAPL recovery pads, these wells were monitored weekly for product recovery. A review of Table 6 indicates that, though LNAPL presence is indicated in the above-mentioned wells due to the presence of LNAPL on the product-interface meter probe, measurable quantities of product have been recovered from MW-6 and CW-7 only. As mentioned earlier, we have modified the product recovery program. These modifications are outlined in Section 2a.

3. Ground Water Treatment System

This section includes documentation of Hexcel's efforts regarding evaluation and operation of the existing ground water treatment system. The following subsections provide the details.

3a. Sewer Connection

A contractor has been selected to build the sewer connection. We anticipate that construction will take place in December. After the permit with the local sewer authority has been finalized, Hexcel will be able to discharge to the sewer line. The Construction Notice related to the Stream Encroachment Permit was filed on September 27, 1995.

3b. Evaluation and Testing of Ground Water Recovery System

Hexcel has begun an evaluation of the existing ground water recovery system in anticipation of the construction of the sewer line that will enable full operation of the system. QED Environmental Systems, Inc. (QED) inspected the downhole components of the ground water recovery system on August 2, 1995. QED recommended replacement of the exhaust valves and remote well operators at all the recovery wells. Additionally, an inventory of the recovery well equipment was conducted on August 30 and 31, 1995. The inventory consisted of measurements of pump elevations, visual inspection of pumps and components and evaluation of operating conditions. The inspection and inventory of the equipment indicated that downhole components of the recovery equipment might need replacement to assure proper operation. Other evaluation and testing of the recovery system are planned following completion of the sewer line. The schedule in Section 6 of this progress report includes current estimates for the testing of the system, modification of the design of the system and reporting the modified design to NJDEP.

Appendy F

Additionally, in conjunction with the evaluation and testing of the ground water recovery system, four shallow borings were advanced through the basement floor slab of Building I on June 13 and 14, 1995. The borings were advanced a short distance into the clayey confining unit which underlies the site. A layer of fill, varying in thickness from 2 to 5 inches, lies between the floor slab and the confining unit. The basement borings were identified as PB-1, 2, 3 and 4. Three (PB-1, PB-2 and PB-4) borings were screened across the fill and completed as 2-inch diameter well points. At all three well points, the bottom of the screen was set at approximately 2 feet below the floor slab.



3c. Treatment of Basement Seepage Water

Basement seepage water continues to be treated on-site and is being disposed of off-site at the DuPont Chambers Works facility, Deepwater, New Jersey. Disposal documentation has been attached as Appendix D.

4. Off-Site Investigation

Our review of the information obtained from the U.S. Army Corps of Engineers (Army Corps) indicates that there is no evidence of contamination related to the former Hexcel facility across the Saddle River. Hexcel had requested information from the Army Corps regarding monitoring well(s) across the Saddle River from the Hexcel site. In the July Progress Report, we had specified that we will evaluate the existing data upon receipt to determine if the existing data were adequate to meet NJDEP's requirements for off-site investigation or if further ground water sampling (via the existing monitoring well or a Geoprobe sampler) was required. The Army Corps provided us with summary data of extensive chemical testing of a monitoring well across the Saddle River from the Hexcel site. The following paragraphs describe the information obtained and our conclusions.

The Army Corps provided us with excerpts of a draft report on September 6, 1995; the excerpts included the boring log, well construction data and chemical data for a monitoring well installed across the Saddle River from the former Hexcel facility. The location of the well is provided in Appendix E. The soil boring and the monitoring well at this location were labeled as SR 40 and MW-8 respectively by the Army Corps. The draft is dated March 17, 1994 and the accompanying summary data tables are dated January 25, 1994.

We have reviewed the information provided in the draft report. According to the report, the well was installed with a 10 foot length of 2-inch Schedule 40 Poly Vinyl Chloride (PVC) 10 slot screen and a 2-inch Schedule 40 PVC riser. The well was drilled using a hollow-stem auger on October 6, 1993. The total depth of the well was approximately 32 feet. The boring log is provided in Appendix E. Ground water was encountered at 16 feet. A brown, dense clayey silt layer was identified in the 20-21 foot split-spoon sample. The boring was advanced through the clay layer to a depth of 32 feet. According to the log, slight oil odor was observed at approximately 15 feet below the ground surface.

The ground water sample from the monitoring well was analyzed for the following parameters:

- Target Compound List Volatile Organics
- Target Compound List Semi-volatile Organics
- Target Compound List Pesticides
- Target Compound List Herbicides
- Target Compound List PCBs
- Target Analyte List Metals and Cyanides

The summary tables for chemical analysis, excerpted from the Army Corps report, are provided in Appendix E. The following conclusions were presented in the report:

- LNAPL and DNAPL were not detected in the monitoring well.
- Semi-volatile organics, pesticides, PCBs and herbicides were not detected in the ground water sample.
- Only aluminum (24 mg/L), arsenic (0.0042 mg/L), iron (44.4 mg/L), manganese (2.4 mg/L), and lead (0.033 mg/L) were detected in the monitoring well at concentrations that exceeded the NJDEP guidelines.

Our review of the Army Corps data leads us to conclude that there is no evidence of contamination related to Hexcel site across the Saddle River from the site. Furthermore, the auto detailing and repair facilities across the Saddle River have had numerous violations for spills on the banks of the Saddle River. The observation of oil odors in the soil at 15 foot depth reinforces Hexcel's concern that soil and ground water quality across the Saddle River has been affected by activities unrelated to Hexcel.

Hexcel believes that the data from the existing Army Corps well meet the NJDEP's request for off-site investigation across the Saddle River. Further investigation with a Geoprobe is not needed due to the extensive chemical testing performed for the ground water samples. In fact, the quality of information obtained from the Army Corps monitor well is expected to be even better than that attainable with the help of a Geoprobe investigation. The ground water has been analyzed for the numerous parameters listed above and the results have indicated that no volatile organics, semi-volatile organics and PCBs are present above regulatory concern. We recommend no further off site investigation across the Saddle River.

5. Waste Disposal Documentation

Enclosed as Appendix D are manifests and a summary table for waste disposal during July, August and September 1995.



6. Schedule and Cost Estimates

Table 7 located in Appendix F presents an updated estimate of the schedule of remaining remedial activities. There has been no change to date in the estimate of cleanup costs.

Sincerely,

GEO ENGINEERING, INC.

Marjorie A. Piette Project Manager

MAP/lll Enclosures

cc:

A. William Nosil Lisa Bromberg, Esq. James Higdon Appendix A

Former Hexcel Facility

Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

File: 94039/wldata/wlevels.xls Entered by: SG Checked by: RMS

Well ID	Туре	Depth to		Product	Product	Depth to		1	*****************	~	ion (all 4" diameter unless otherwise noted)
		Water	DNAPL	LNAPL	Thickness	Bottom	Top of Casing	Elevation	Туре	Casing	Comments
W Series:											
RW1-1	shallow	5.47				14.25	28.24	22.77	flush	s.steel	Product on probe (LNAPL); TOC Elv. corrected
RW6-1	shallow	3.70				13.70	28.84	25.14	flush	s.steel	Trace product on probe (DNAPL)
RW6-2	shallow	4.05				14.75	29.34	25.29	flush	s.steel	Solid white precipitate on probe
RW6-3	shallow						28.72		flush	s.steel	Well not included in quarterly monitoring plan
RW7-1	shallow	6.08				16.60	26.25	20.17	flush	s.steel	Product on probe (DNAPL)
RW7-2	shallow	6.61				16.79	26.48	19.87	flush	s.steel	
RW7-3	shallow	6.84				17.21	26.78	19.94	flush	s.steel	
RW7-4	shallow	7.22				19.04	27.11	19.89	flush	÷	Trace product on probe (DNAPL)
RW7-5	shallow	7.81				19.32	27.57	19.76	flush	s.steel	Trace product on probe (DNAPL)
RW7-6	shallow	7.25				14.96	26.48	19.23	flush	s.steel	
RW7-7	shallow	7.26				14.92	26.89	19.63	flush	s.steel	
RW7-8	shallow	5.86				14.95	25.90	20.04	flush	s.steel	
RW7-9	shallow	7.38				16.10	26.87	19.49	flush	s.steel	
RW7-10	shallow	7.55				14.14	26.10	18.55	flush	s.steel	
RW15-1	shallow	7.77				14.88	29.95	22.18	flush	s.steel	
RW15-2	shallow					••••••	30.15		flush	s.steel	Well not included in quarterly monitoring plan
Series:											
P-1	shallow	7.29				9.86	30.09	22.80	flush	1.5" pvc	
P-2	shallow	8.01				11.80	30.19	22.18	flush		Product on probe (LNAPL)
I Series:											
PI-1	deep	•••••••••••				***************************************	26.90		flush	O" a staal	Well not included in quarterly monitoring plan

Former Hexcel Facility

Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

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	Туре	Depth to Water		Product	Product Thickness	_	Elevation Top of	Water Elevation	*****************	Casing	ion (all 4" diameter unless otherwise noted) Comments
		water	DNAPL	LNAPL	Inickness	вопот	Casing	Elevation	Туре		Comments
W Series:											
							ļ				
CW-1	shallow	7.53				11.42	29.77	22.24	flush	s.steel	
CW-2	shallow					•••••	29.51		flush	s.steel	Well not included in quarterly monitoring plan
CW-3	recov.						29.72		flush	s.steel	Well not included in quarterly monitoring plan
CW-4	shallow	6.47				10.94	29.00	22.53	flush	s.steel	
CW-5	recov.						28.67		flush	s.steel	Well not included in quarterly monitoring plan
CW-6	shallow						28.93		flush	s.steel	Well not included in quarterly monitoring plan
CW-7	shallow	7.68				13.96	26.13	18.45	flush	s.steel	Product on probe (LNAPL)
CW-8	shallow	8.54				13.82	26.77	18.23	flush	s.steel	
CW-9	recov.						26.37		flush	s.steel	Well not included in quarterly monitoring plan
CW-10	shallow	7.56				10.21	25.91	18.35	flush	s.steel	
CW-11	recov.						25.74		vaultbox	s.steel	Well not included in quarterly monitoring plan
CW-12	shallow	7.41				13.91	25.71	18.30	flush	s.steel	Product on probe (LNAPL, DNAPL)
CW-13	shallow						26.05		flush	s.steel	Well not included in quarterly monitoring plan
CW-14	shallow	8.50				13.87	26.37	17.87	flush	s.steel	
CW-15	recov.						26.31		flush	s.steel	Well not included in quarterly monitoring plan
CW-16	shallow	8.01				13.90	26.45	18.44	flush	s.steel	Trace product on probe (DNAPL)
CW-17	shallow	7.30				13.90	26.25	18.95	flush	s.steel	
CW-18	recov.						26.61		flush	s.steel	Well not included in quarterly monitoring plan
CW-19	-shallow						26.50		flush	s.steel	Well not included in quarterly monitoring plan
CW-20	shallow						26.74		flush	s.steel	Well not included in quarterly monitoring plan
CW-21	recov.						26.77] 	flush	s.steel	Well not included in quarterly monitoring plan
CW-22	shallow			· · · · · · · · · · · · · · · · · · ·			26.35		flush		Well not included in quarterly monitoring plan

Former Hexcel Facility

Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

File: 94039/wldata/wlevels.xls Entered by: SG Checked by: RMS

Well ID	Туре	Depth to Water		Product	Product Thickness	Depth to Bottom	Top of	Water Elevation		Casing	ion (all 4" diameter unless otherwise noted) Comments
		water	DNAPL	LNAFL	Thickness	Dottom	Casing	Elevation	Туре	Casing	Comments
1W Series:											
MW-1	deep	10.54				23.50	32.42	21.88	stickup	pvc	
MW-2	shallow	8.56				10.15	31.00	22.44	stickup	pvc	
MW-3	deep	11.07				30.72	31.13	20.06	stickup	pvc	
MW-4	shallow	7.93				9.86	32.33	24.40	stickup	pvc	
MW-5	deep	11.91				28.30	32.54	20.63	stickup	pve	
MW-6	shallow	10.31				18.29	30.74 ⁻	20.43	stickup	pvc	
MW-7	deep	10.45		\ 		32.86	30.68	20.23	stickup	pvc	
MW-8	shallow	12.17				17.32	30.26	18.09	stickup	pvc	Product on probe (DNAPL)
MW-9	deep	9.62				29.55	29.83	20.21	stickup	pvc	
MW-10	shallow	12.78				16.75	30.83	18.05	stickup	pvc	
MW-11	deep	10.83				33.67	30.78	19.95	stickup	pvc	
MW-12	shallow	10.84				17.19	31.01	20.17	stickup	pvc	
MW-13	deep	10.48				32.82	31.16	20.68	stickup	pvc	
MW-14	shallow	11.67				15.56	30.70	19.03	stickup	pvc	
MW-15	deep	9.62				25.57	30.77	21.15	stickup	pvc	
MW-16	shallow	7.32				12.28	29.69	22.37	stickup	pvc	
MW-17	shallow	9.72				14.06	31.53	21.81	stickup	pvc	
MW-18	shallow	9.47				11.32	32.23	22.76	stickup	pvc	
MW-19	deep	7.78				26.56	29.08	21.30	stickup	pvc	
MW-20	shallow	5.52				20.01	27.95	22.43	flush	pvc	
MW-21	shallow	9.07				15.08	30.67	21.60	stickup	pvc	
MW-22	shallow	6.08				8.18	28.45	22.37	flush	pvc	
MW-23	shallow	4.90				9.63	27.51	22.61	flush	pvc	
MW-24	shallow	4.21				9.46	26.51	22.30	flush	pvc	
MW-25	shallow	7.58				12.70	26.03	18.45	flush	pvc	

Former Hexcel Facility

Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

File: 94039/wldata/wlevels.xls Entered by: SG Checked by: RMS

V	Vell ID	Type	Depth to	Depth to	Product	Product	Depth to	Elevation	Water	Well	Construct	ion (all 4" diameter unless otherwise noted)
			Water	DNAPL	LNAPL	Thickness	Bottom		Elevation		Casing	Comments
мw	Series:							55				
:	MW-26	deep	7.58				17.90	28.85	21.27	flush	2" pvc	Trace product on probe (DNAPL)
	MW-27	shallow	7.11				12.28	31.43	24.32	stickup	pvc	
	MW-28	shallow	10.90				14.75	29.68	18.78	stickup		
	MW-29	shallow	4.71				9.31	27.32	22.61	flush	pvc	
	MW-30	shallow	5.51				10.44	28.08	22.57	flush	pvc	
:	MW-31	shallow	5.49				10.59	27.95	22.46	flush	pvc	
:	MW-32	shallow	9.03				11.22	32.51	23.48	stickup	рус	
{	MW-33	shallow	10.22				16.94	31.72	21.50	stickup	pvc	
PB S	Series:											
	PB-1	shallow	**				3.64	19.13	**	stickup	2" g.steel	
ĺ	PB-2	shallow	0.49 *	3.39		1.23	4.62	19.07	18.58	stickup	2" g.steel	Trace product on probe (DNAPL)
ĺ	PB-4	shallow	0.58 *				3.68	19.35	18.77		2" g.steel	

NOTES: All Measurements of depths are from the top of casing unless otherwise noted.

- : Not detected by product interface meter.

* : Tape measure used to measure water level.

Top of Casing Elevation corrected from Form B for the well

NA: Not available

** : Depth to water could not be measured because water level was higher than the top of casing.

Many of the wells have accumulated sediment which results in slight fluctuations in the measurements of depth to bottom.

Former Hexcel Facility Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

File: 94039/wldata/wellscrn.xls

Sheet: Modified October

Entered by: SG; Checked by: SJA

Well ID	Туре	Ground Elevation	Elevation Top of	Depth to Bottom	Length of	Elevation Top of	Depth to Water	Water Elevation	Constr	/ell uction *	Insta	llation	Water Table Elv > Top of Scree
			Casing	(From GS)	Screen	Screen	(07/6/95)		Туре	Casing	Date	Ву	Elv.
RW Series:											:		
,								ļ				<u></u>	
RW1-1	shall.	28.67	28.24	15.00	10	23.67	5.47	22.77	flush	s.steel	10/91	Heritage	No
RW6-1	shall.	29.28	28.84	14.00	5	20.28	3.70	25.14	flush	s.steel	8/90	Heritage	Yes
RW6-2	shall.	U	29.34	16.00	5	U	4.05	25.29	flush	s.steel	• • • • • • • • • • • • • • • • • • • •	Heritage	U
RW6-3	shall.	29.02	28.72	8.60	5	25.42	NI	NI	flush	s.steel		Heritage	NI
RW7-1	shall.	26.94	26.25	18.00	5	13.94	6.08	20.17	flush	s.steel	8/90	Heritage	Yes
RW7-2	shall.	27.07	26.48	17.50	5	14.57	6.61	19.87	flush	s.steel		Heritage	Yes
RW7-3	shall.	27.17	26.78	17.50	5	14.67	6.84	19.94	flush	s.steel	8/90	Heritage	Yes
RW7-4	shall.	27.60	27.11	19.00	5	13.60	7.22	19.89	flush	s.steel	8/90	Heritage	Yes
RW7-5	shall.	27.97	27.57	20.00	5	12.97	7.81	19.76	flush	s.steel	9/90	Heritage	Yes
RW7-6	shall.	27.10	26.48	15.00	5	17.10	7.25	19.23	flush	s.steel	9/90	Heritage	Yes
RW7-7	shall.	27.25	26.89	15.00	5	17.25	7.26	19.63	flush	s.steel	9/90	Heritage	Yes
RW7-8	shall.	26.71	25.90	15.00	5	16.71	5.86	20.04	flush	s.steel	9/90	Heritage	Yes
RW7-9	shall.	27.18	26.87	17.00	5	15.18	7.38	19.49	flush	s.steel	2/91	Heritage	Yes
RW7-10	shall.	26.50	26.10	15.00	5	16.50	7.55	18.55	flush	s.steel	2/91	Heritage	Yes
RW15-1	shall.	30.43	29.95	14.75	10	25.68	7.77	22.18	flush	s.steel	8/90	Heritage	No
RW15-2	shall.	30.37	30.15	14.00	10	26.37	NI	NI	flush	s.steel	8/90	Heritage	NI
Series:		<u> </u> 											
P-1	shall.	U	30.09	U	U	U	7.29	22.80	flush	1.5" pvc	Ü	U	U
P-2	shall.	U	30.19	U	U	U	8.01	22.18		1.5" pvc	U	U	U
Pl Series:													
PI-1	deep		26.90			•••••	NI	NI	flush	s.steel	10/91	Heritage	^

Former Hexcel Facility Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

File: 94039/wldata/wellscrn.xls

Sheet: Modified October

Entered by: SG; Checked by: SJA

Well ID	Туре	Ground Elevation	Elevation Top of	Depth to Bottom	Length of	Elevation Top of	Depth to Water	Water Elevation		'ell uction *	Insta	ıllation	Water Table Elv > Top of Scree
			Casing	(From GS)	Screen	Screen	(07/6/95)		Туре	Casing	Date	Ву	Elv.
CW Series:											-		
CW-1	shall.	30.27	29.77	12.00	5	23.27	7.53	22.24	flush	s.steel	9/90	Heritage	No
CW-2	shall.	30.11	29.51	12.00	5	23.11	NI	NI	flush	s.steel		Heritage	NI
CW-3	recov.	U	29.72	12.00	5	U	NI	NI	flush	s.steel	• • • • • • • • • • • • • • • • • • • •	Heritage	NI
CW-4	shall.	29.10	29.00	11.50	5	22.60	6.47	22.53	flush	s.steel	• • • • • • • • • • • • • • • • • • • •	Heritage	No
CW-5	recov.	28.89	28.67	11.50	5	22.39	NI	NI`	flush	s.steel	7/90	Heritage	NI
CW-6	shall.	29.25	28.93	9.00	5	25.25	NI	NI	flush	s.steel	9/90	Heritage	NI
CW-7	shall.	26.70	26.13	14.00	5	17.70	7.68	18.45	flush	s.steel	8/90	Heritage	Yes
CW-8	shall.	26.70	26.77	14.00	5	17.70	8.54	18.23	flush	s.steel	8/90	Heritage	Yes
CW-9	recov.	26.60	26.37	14.00	5	17.60	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-10	shall.	26.50	25.91	14.00	5	17.50	7.56	18.35	flush	s.steel	8/90	Heritage	Yes
CW-11	recov.	26.60	25.74	14.00	5	17.60	NI	NI	vaultbox	s.steel	8/90	Heritage	NI
CW-12	shall.	26.51	25.71	14.00	5	17.51	7.41	18.30	flush	s.steel	8/90	Heritage	Yes
CW-13	shall.	26.60	26.05	14.00	5	17.60	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-14	shall.	26.70	26.37	14.00	5	17.70	8.50	17.87	flush	s.steel	8/90	Heritage	Yes
CW-15	recov.	26.90	26.31	14.00	5	17.90	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-16	shall.	27.00	26.45	14.00	5	18.00	8.01	18.44	flush	s.steel	8/90	Heritage	Yes
CW-17	shall.	27.10	26.25	14.00	5	18.10	7.30	18.95	flush	s.steel	8/90	Heritage	Yes
CW-18	recov.	27.20	26.61	14.00	5	18.20	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-19	shall.	27.20	26.50	14.00	5	18.20	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-20	shall.	27.30	26.74	14.00	5	18.30	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-21	recov.	27.40	26.77	14.00	5	18.40	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-22	shall.	27.30	26.35	14.00	5	18.30	NI	NI	flush	s.steel	8/90	Heritage	NI

Former Hexcel Facility Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

File: 94039/wldata/wellscrn.xls

Sheet: Modified October

Entered by: SG; Checked by: SJA

Well ID	Туре	Ground Elevation	Elevation Top of	Depth to Bottom	Length of	Elevation Top of	Depth to Water	Water Elevation		ell uction *	Insta	llation	Water Table Elv > Top of Scree
			Casing	(From GS)	Screen	Screen	(07/6/95)		Туре	Casing	Date	Ву	Elv.
MW Series:													
MW-1	deep	29.03	32.42	20.15	5	13.88	10.54	21.88	stickup	pvc	7/88	Environ	**
MW-2	shall.	27.90	31.00	6.77	5	26.13	8.56	22.44	stickup	pvc	8/88	Environ	No
MW-3	deep	27.84	31.13	27.54	5	5.30	11.07	20.06	stickup	pvc	8/88	Environ	**
MW-4 ·	shall.	29.02	32.33	6.53	5	27.49	7.93	24.40	stickup	pvc	8/88	Environ	No
MW-5	deep	29.03	32.54	24.91	5	9.12	11.91	20.63	stickup	pvc	8/88	Environ	**
MW-6	shall.	27.14	30.74	15.02	10	22.12	10.31	20.43	stickup	pvc	8/88	Environ	Yes
MW-7	deep	27.18	30.68	29.63	5	2.55	10.45	20.23	stickup	pvc	7/88	Environ	**
MW-8	shall.	26.92	30.26	13.94	10	22.98 [.]	12.17	18.09	stickup	pvc	8/88	Environ	No
MW-9	deep	26.89	29.83	26.80	5	5.09	9.62	20.21	stickup	pvc	7/88	Environ	**
MW-10	shall.	27.33	30.83	13.52	11	24.81	12.78	18.05	stickup	pvc	8/88	Environ	No
MW-11	deep	27.28	30.78	30.42	10	6.86	10.83	19.95	stickup	pve	7/88	Environ	ļ
MW-12	shall.	27.62	31.01	13.57	10	24.05	10.84	20.17	stickup	pve	8/88	Environ	No
MW-13	deep	27.63	31.16	29.74	5	2.89	10.48	20.68	stickup	pvc	7/88	Environ	^
MW-14	shall.	27.12	30.70	11.94	9	24.18	11.67	19.03	stickup	pvc	8/88	Environ	No
MW-15	deep	27.17	30.77	22.04	5	10.13	9.62	21.15	stickup	pvc	7/88	Environ	
MW-16	shall.	26.71	29.69	9.57	5	22.14	7.32	22.37	stickup	pvc	8/88	Environ	Yes
MW-17	shall.	29.10	31.53	12.00	8	25.10	9.72	21.81	stickup	pvc	1/89	Environ	No
MW-18	shall.	29.04	32.23	8.07	5	25.97	9.47	22.76	stickup	pvc	8/88	Environ	No
MW-19	deep	27.30	29.08	25.00	5	7.30	7.78	21.30	stickup	pvc	1/89	Environ	_
MW-20	shall.	28.50	27.95	20.00	5	13.50	5.52	22.43	flush	pvc	11/90	Heritage	Yes
MW-21	shall.	28.80	30.67	13.00	10	25.80	9.07	21.60	stickup	pvc	9/90	Heritage	No
MW-22	shall.	28.73	28.45	8.50	5	25.23	6.08	22.37	flush	pve	•	Heritage	No
MW-23	shall.	27.83	27.51	10.00	5	22.83	4.90	22.61	flush	pvc	* · · · · · · · · · · · · · · · · · · ·	Heritage	, No
MW-24	shall.	26.93	26.51	10.00	5	21.93	4.21	22.30	flush	pvc	4	Heritage	No
MW-25	shall.	26.47	26.03	13.00	10	23.47	7.58	18.45	flush	pve	•	Heritage	No

Former Hexcel Facility Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

File: 94039/wldata/wellscrn.xls

Sheet: Modified October

Entered by: SG; Checked by: SJA

Well ID	Туре	Ground Elevation	Elevation Top of	Depth to Bottom	Length of	Elevation Top of	Depth to Water	Water Elevation		/ell uction *	Insta	llation	Water Table Elv. > Top of Screen
			Casing	(From GS)	Screen	Screen	(07/6/95)		Туре	Casing	Date	Ву	Elv.
MW Series:													
MW-26	deep	29.26	28.85	19.00	2	12.26	7.58	21.27	flush	2" pvc	12/90	Heritage	^
MW-27	shall.	29.10	31.43	10.00	5	24.10	7.11	24.32	stickup	pvc	9/90	Heritage	Yes
MW-28	shall.	27.50	29.68	13.00	10	24.50	10.90	18.78	stickup	pvc	9/90	Heritage	No
MW-29	shall.	27.50	27.32	10.00	5	22.50	4.71	22.61	flush	pvc	2/91	Heritage	Yes
MW-30	shall.	28.25	28.08	11.00	5	22.25	5.51	22.57	flush	pvc	2/91	Heritage	Yes
MW-31	shall.	28.33	27.95	11.00	5	22.33	5.49	22.46	flush	pvc	2/91	Heritage	No
MW-32	shall.	U	32.51	8.00	6	U	9.03	23.48	stickup	pvc	4/92	Heritage	U
MW-33	shall.	U	31.72	14.00	10	U	10.22	21.50	stickup			Heritage	U
PB Series:													<u> </u>
PB-1	shallow	17.46	19.13	1.97	1	16.46	**	NA	stickup	2" g.steel	6/95	GEO	Yes
P B-2	shallow	17.50	19.07	2.05	1	16.70	0.49	18.58		2" g.steel		GEO	Yes
PB-4	shallow	17.52	19.35	1.85	1	16.72	0.58	18.77	stickup	2" g.steel	6/95	GEO	Yes

NOTES: Refer to "Table 2: Summary of Well Construction Data" provided in Appendix B of Progress Report dated July 31, 1995 for the list of sources used for compiling this table.

All Measurements of depths are from the top of casing unless otherwise noted.

NI: Well not included in the 7/6/95 Quarterly Monitoring or well was inaccessible on that date.

U: Unknown.

* : All wells 4" diameter unless otherwise noted.

NA: Not available.

: Well is screened in the confined aquifer, therefore, the question is not applicable.

** : Depth to water could not be measured because water level was higher than top of casing.

Contour Map Reporting Form

	te Name: Former Hexcel Facility, Lodi, NJ oject No.: 94039	Figure No.: A-1 Water levels taken on 7 Page 1 of 2	/6/95
1.	Did any surveyed well casing elevations change from the previous If yes, attach new "Well Certification -Form B" and identify the rechange (damage to casing, installation of recovery system in monit	ason for the elevation	□Yes ⊠No
2.	Are there any monitor wells in unconfined aquifers in which the washigher than the top of the well screen? If yes, identify these wells.	ater table elevation is	⊠Yes □No
	Monitor wells for which the water table elevations are higher than are identified in Table 2: Summary of Well Construction Data pro	• •	
3.	Are there any monitor wells present at the site but omitted from th Unless the omission of the well(s) has been previously approved by the omissions.	•	⊠Yes □No
	Quarterly ground water elevation monitoring plan approved by No letter . Also refer to notes on Figure A-1.	JDEP in its June 12, 1995	
4.	Are there any monitor wells containing separate phase product duri	ng this measuring event?	⊠Yes □No
	Were any of the monitor wells with separate phase product include	ed in the ground water	
	contour map? If yes show the formula used to correct the water table elevation.		⊠Yes □No
	Separate phase product, where measurable, consists of DNAPL, necorrection is necessary.	ot LNAPL; therefore, no	
5.	Has the ground water flow direction changed more than 45 degree ground water contour map?	s from the previous	□Yes
	If yes, discuss the reasons for the change.		⊠No
6.	Has ground water mounding and/or depressions been identified in contour map?	the ground water	⊠Yes
	Unless the ground water mounds and/or depressions are caused by remediation system, discuss the reasons for this occurrence.	the ground water	□No
	It is not known why mounding occurs in the vicinity of building 2.		

1:\wldata\contours.doc

7.	Are all the wells used in the contour map screened in the same water-bearing zone? If no, justify inclusion of those wells.	⊠Yes ∐No
8.	Were the ground water contours ☑ computer generated, ☐ computer aided, or ☐ hand-drawn? If computer aided or generated, identify the interpolation method(s) used.	
	Krioina Routine	

Figure No.: A-1

Page 2 of 2

Water levels taken on 7/6/95

Site Name: Former Hexcel Facility, Lodi, NJ

Project No.: 94039

Contour Map Reporting Form

Figure No.: A-2

Site Name: Former Hexcel Facility, Lodi, NJ

Pr	oject No.: 94039	Water levels taken on 7 Page 1 of 1	/6/95
1.	Did any surveyed well casing elevations change from the previous s If yes, attach new "Well Certification -Form B" and identify the reachange (damage to casing, installation of recovery system in monitor)	son for the elevation	□Yes ⊠No
2.	Are there any monitor wells in unconfined aquifers in which the wat higher than the top of the well screen? If yes, identify these wells.	er table elevation is	□Yes ⊠No
	Not applicable because confined aquifer.		
3.	Are there any monitor wells present at the site but omitted from the Unless the omission of the well(s) has been previously approved by the omissions.		□Yes ⊠No
4.	Are there any monitor wells containing separate phase product during	ng this measuring event?	□Yes ⊠No
	Were any of the monitor wells with separate phase product included contour map? If yes show the formula used to correct the water table elevation.	d in the ground water	□Yes ⊠No
5.	Has the ground water flow direction changed more than 45 degrees ground water contour map? If yes, discuss the reasons for the change.	from the previous	□Yes ⊠No
6.	Has ground water mounding and/or depressions been identified in the contour map? Unless the ground water mounds and/or depressions are caused by remediation system, discuss the reasons for this occurrence.		□Yes ⊠No
7.	Are all the wells used in the contour map screened in the same water. If no, justify inclusion of those wells.	er-bearing zone?	⊠Yes □No
8.	Were the ground water contours ⊠ computer generated, □ computer aided, or □ hand-drawn? If computer aided or generated, identify the interpolation method(s)) used.	
	Kriging method		

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Appendix B

TABLE 3:

SUMMARY OF MONTHLY WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS

FOR AUGUST 1995 Former Hexcel Facility Lodi, New Jersey

-All measurements in feet -All elevations in feet (NGVD)-

GEO Engineering, Inc.

October 1995

File: 94039/wldata/wlevels.xls Entered by: RMS Check: SG

MEASUREMENTS COLLECTED 8/10/95

Well ID	Туре	Depth to Water	Depth to	Product LNAPL	Product Thickness	Depth to Bottom	Elevation Top of Casing	Water Elevation	Comments
CW-7	shallow	7.79				13.97	26.13	18.34	Product on probe (LNAPL)
CW-12	shallow	7.51				13.95	25.71	18.20	Product on probe (DNAPL)
CW-16	shallow	8.08				13.90	26.45	18.37	Product on probe (DNAPL)
MW-6	shallow	10.30 *		10.27	0.23	18.23	30.74	20.44	Measured DTW is 10.50; product on probe (LNAPL)
MW-8	shallow	12.25				17.33	30.26		Product on probe (LNAPL and DNAPL)
MW-23	shallow	4.82				9.66	27.51	22.69	Sediment on probe
MW-26	deep	8.32	17.31		0.60	17.91	28.85	20.53	Product on probe (DNAPL)
RW1-1	shallow	5.53				14.28	28.24	22.71	Product on probe (LNAPL)
RW6-1	shallow	3.23				13.72	28.84	25.61	Product on probe (DNAPL), brown floc on probe
RW6-3	shallow	3.93				5.40	28.72	24.79	Brown liquid in annular space of well
RW7-1	shallow	6.14				16.63	26.25	20.11	Product on probe (DNAPL)
RW7-4	shallow	7.27				19.10	27.11	19.84	Product on probe (LNAPL and DNAPL)
RW7-5	shallow	7.86				19.37	27.57		Product on probe (LNAPL)
P-2	shallow	7.91				11.75	30.06		Product on probe (LNAPL)
PB-2 **	shallow	0.12	3.48		0.15	3.63	19.07	18.95	Product on probe (DNAPL)

NOTES:

All Measurements of depths are from the top of casing unless otherwise noted.

- -- Not detected by product interface meter.
- * In wells with LNAPL, water levels are corrected using the equation: DTW (corrected) = DTW (measured) (Product thickness * specific gravity). Specific gravity of 0.88 used for water level correction (petroleum lubricating oil).
- ** Depth to water measured with a steel tape.

Many of the wells have accumulated sediment which results in slight fluctuations in the measurements of depth to bottom.

TABLE 4: SUMMARY OF MONTHLY WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS

FOR SEPTEMBER 1995 Former Hexcel Facility Lodi, New Jersey GEO Engineering, Inc.

October 1995

File: 94039/wldata/wlevels.xls Entered by: RMS Check: SG

-All measurements in feet -All elevations in feet (NGVD)-

MEASUREMENTS COLLECTED 9/13/95-9/1595

Well ID	Туре	Date	Depth to Water	}	Product LNAPL	Product Thickness	Depth to Bottom	Elevation Top of Casing	Water Elevation	Comments
CW-7	shallow	9/13/95	8.02				13.98	26.13	18.11	Product on probe (LNAPL)
CW-12	shallow	9/14/95	7.78				13.97	25.71	17.93	Product on probe (DNAPL), floc on probe
CW-16	shallow	9/14/95	8.30				13.90	26.45		Product on probe (DNAPL)
MW-6	shallow	9/14/95	10.64 *		10.58	0.46	18.44	30.74	20.10	Measured DTW is 11.04; product on probe (LNAPL)
MW-8	shallow	9/14/95	12.49				17.34	30.26	17. 77	Product on probe (DNAPL)
MW-23	shallow	9/13/95	5.45		- -		9.61	27.51	22.06	Sediment on probe
MW-26	deep	9/15/95	14.16				17.91	28.85	14.69	Product on probe (DNAPL)
RW1-1	shallow	9/13/95	5.86				14.27	28.24	22.38	
RW6-1	shallow	9/15/95	3.39				13.72	28.84	25.45	Product on probe (DNAPL),
RW6-3	shallow	9/15/95	4.15				5.42	28.72	24.57	Product on probe (LNAPL); Brown liquid in annular space of well
RW7-1	shallow	9/15/95	6.70		- -		16.62	26.25	19.55	Product on probe (DNAPL)
RW7-4	shallow	9/15/95	7.77				19.05	27.11	19.34	Product on probe (DNAPL)
RW7-5	shallow	9/15/95	8.36				19.40	27.57	19.21	
P-2	shallow	9/13/95	8.61				11.72	30.06	21.45	Product on probe (LNAPL)
PB-2 **	shallow	9/13/95	0.02	3.40		0.24	3.64	19.07	19.05	Product on probe (DNAPL)

NOTES:

All Measurements of depths are from the top of casing unless otherwise noted.

- -- Not detected by product interface meter.
- * In wells with LNAPL, water levels are corrected using the equation: DTW (corrected) = DTW (measured) (Product thickness * specific gravity). Specific gravity of 0.88 used for water level correction (petroleum lubricating oil).
- ** Depth to water measured with a steel tape.

Many of the wells have accumulated sediment which results in slight fluctuations in the measurements of depth to bottom.

Appendix C

Former Hexcel Facility Lodi, New Jersey

October 1995

File: 94039\prodcoll\prodcol2.xls

Sheet: Third QD'95 (DEP)
By: SG Check: RMS

All Quantities are Expressed in Gallons Rounded to the Nearest 0.1

DATE	MW-6 (DNAPL)	MW-8 (DNAPL)	MW-26 (DNAPL)	RW6-1 (DNAPL)	RW7-1 (DNAPL)	RW7-4 (DNAPL)	RW7-5 (DNAPL)	CW-12 (DNAPL)	CW-16 (DNAPL)	PB-2 (DNAPL)	CW-15 (DNAPL)	TOTAL VOLUME RECOVERED
7/5/95	0.1	*	*	*	*	*	*	*	*	*	*	
7/12/95	0.1	*	*	*	*	*	*	*	*	0.2	*	
7/20/95	0.1	*	*	*	*	*	*			0.2	*	
7/26/95	0.1	*	*	*	*	*	*			0.1	*	
8/2/95	0.1	*	*	*	*	*	*			0.1	*]
8/10/95	0.1		0.1					 .		0.1	*	
8/17/95	0.1	*		*	*	*	*			0.1	*]
8/23/95			0.1	0.1	0.1			0.1		0.1	*]
8/30/95**											0.5]
8/31/95	0.1		0.1		0.1]
9/6/95 - 9/7/95	0.1									0.1		
9/13/95 - 9/15/95										0.1	0.2	
9/20/95	, 	*	· 	*		*	*	*	*	0.1		
9/26/95		*	*	*	*	*	*	*	*			₩
TOTAL VOLUME RECOVERED, 3rd QUARTER, 1995	0.9		0.3	0.1	0.2			0.1		1.2	0.7	3.5
TOTAL VOLUME RECOVERED, 10/94 - 6/95	6.4	1.0	0.1					0.6	0.3	0.1		8.5
TOTAL VOLUME RECOVERED	7.3	1.0	0.4	0.1	0.2			0.7	0.3	1.3	0.7	12.0

Notes: For product recovery purposes, quantities greater than 0.1 gallons (approx. 1 cup) are considered to be "measurable". It is not practicable to separate product from mixture of water and product when quantity is less than 1 cup.

- * Well not included in the weekly product recovery program.
 - i) Well was monitored and did not indicate recoverable product or ii) no measurable amount of product was recovered either by bailing or pumping.
- ** Product was detected in CW-15 when an inventory of recovery well equipment was taken on this date.

TABLE 6: SUMMARY OF PRODUCT COLLECTION (LNAPL)

Former Hexcel Facility Lodi, New Jersey October 1995

File: 94039\prodcoll\prodcol2.xls Sheet: Third OL'95 (DEP)

By: SG Check:

All Quantities are Expressed in Gallons Rounded to the Nearest 0.1

DATE	MW-6 (LNAPL)	MW-8 (LNAPL)	MW-23 (LNAPL)	RW1-1 (LNAPL)	RW 6-1 (LNAPL)	RW7-4 (LNAPL)	RW7-5 (LNAPL)	CW-7 (LNAPL)	CW-12 (LNAPL)	CW-15 (LNAPL)	CW-16 (LNAPL)	TOTAL VOLUME RECOVERED
7/5/95		*	*	*	*	*	*		*	*	*	
7/12/95		*	P/NI	P/NI	*	*	*		P/NI	*	P/NI	
7/20/95	0.2	*			*	*	*			*		l '
7/26/95	0.2	*			*	*	*			*		
8/2/95	0.2	*			*	*	*	0.1		*		
8/10/95	0.8	*			*	P/NI	*	0.2		*		
8/17/95	0.2	*			*		*	0.1		*		
8/23/95	0.2	P/NI			*		*			*		
8/31/95	0.5				P/NI		P/NI			P/NI		
9/1/95 **	0.5											
9/5/95 **	0.5							[·····		•		
9/6/95-9/7/95	0.2											
9/13/95-9/15/95	1.5											
9/20/95	0.75	*	*	*		*			*		*	
9/26/95	0.5	*	*	*	*	*	*		*		*	₩
TOTAL VOLUME RECOVERED, 3rd QUARTER, 1995	6.3							0.4			·	6.7
TOTAL VOLUME RECOVERED, 10/94 - 6/95								0.4				0.4
TOTAL VOLUME RECOVERED	6.3							0.8		·		7.1

Notes:

For product recovery purposes, quantities greater than 0.1 gallons (approx. 1 cup) are considered to be "measurable". It is not practicable to separate product from mixture of water and product when quantity is less than 1 cup.

- * Well not included in the weekly product recovery.
 - i) Monitoring did not indicate recoverable product or ii) no measurable amount of LNAPL was recovered in the absorbent pad.

P/NI An LNAPL recovery pad was installed in the well at this date and the well was included in the weekly product recovery program thereafter.

** Product recovery was performed above and beyond the frequency specified in the proposed recovery plan and was only performed at MW-6.

Appendix D

Appendix D

The following table summarizes all disposal documentation for July, August and September 1995. Copies of manifests are included.

Date Accepted at Disposal Facility (unless indicated otherwise)	State Manifest Document Number	Quantity	Comments
7/26/95	NJA 2074659	3,953 gallons	Treated ground water
9/1/95	NJA 2074637	3,584 gallons.	Treated ground water

State of New Jersey Department of Environmental Protection and Energy **Hazardous Waste Regulation Program Manifest Section** CN 421, Trenton, NJ 08625-0421 Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) Generator's US EPA ID No **UNIFORM HAZARDOUS** Information in the shaded areas Document No. WASTE MANIFEST is not required by Federal law 3. Generator's Name and Mailing Address HEXCEL CURJURATION
205 MAIN ST. LUDI N.J. 07644 SAME Transporter 1 Company Name RECHOLD CART CURI Transporter 2 Company Name 054126 E. State Trans. ID-NUDEPE Designated Facility Name and Site Address

AUPONT

HIGHWAY RT. BO

AMBLES OWNES PLANT US EPA ID Number F. Transporter's Phone (G. State Facility's JD MJD0101013181517136 H. Facility's Phone (604) 540 -27 US DOT Description (Including Proper Shipping Name, Hazard Class or Division ID Number and Packing Group) Tota! Waste No HAZAROUJS WASTE LIGITION. O.S., 9; NA 3.82, POTT (FOOL, FOOZ, FOOZ) The Additional Descriptions for Materials Listed above TRACE CRYPTIC SAVENTS < 1%

THE FOUL HUBS PCD STORE TRACE CRYPTIC SAVENTS < 1%

Suspection SULVES 2 1% DISSULVED Solios < 1% CANTER > 97% K-Handling Codes for Wastes Listed Above CONTRACT # OWO4002 REL- OOD

24HR. Mone 908-462-1001

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway

place to reduce the volume and toxicity of waste go If I am a large quantity generator, I certify that I have a program in place economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select

the best waste management method that is available to me and that I can afford Month Day

Transporter 1 Acknowledgement of Receipt of Materials

Month Day

Printed/Typed Name

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

19. Discrepancy Indication Space

ITAM I should contain only one wate rade - All Other in Itam J

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

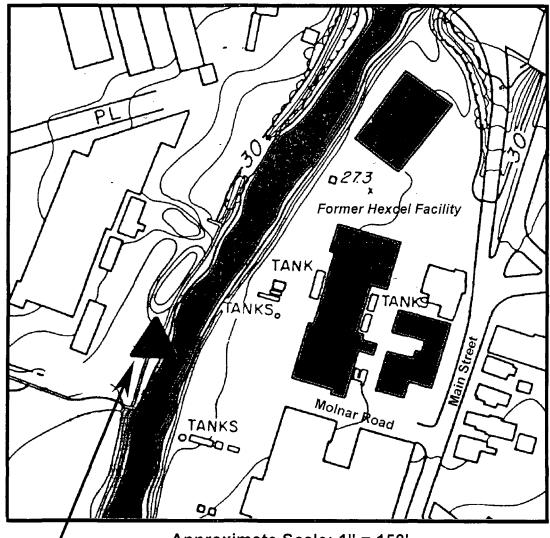


State of New Jersey Department of Environmental Protection and Energy Hazardous Waste Regulation Program Manifest Section CN 421, Trenton, NJ 08625-0421

ease type or print in block letters. (Form designed for use on elite (12-pitch) typew	riter.) Manifest	2 Page 1	No. 2050-0039. Expires 9-30-9
WASTE MANIFEST Generator's US EPA ID No.	134 Document No.	of is not	tion in the shaded areas equired by Federal law.
3. Generator's Name and Mailing Address Harcel Community	and the first section of the section	A. State Manifest Docu	nent Number
DE MAIN ST. LODINJ. 07644	and the second of the second o	B. State Generator's ID	(Gen Site Address)
4. Generator's Phone (7) 1.5. Transporter 1 Company Name 6. US	S EPA ID Number	C. State Trans. ID-NJDI	the state of the s
FREEHOLD CART CORD INC. NIDO	54126164	Decal N	16422
7. Transporter 2 Company Name 8. US	SEPA ID Number	D. Transporter's Phone E. State Trans ID-NJDI	
9. Designated Facility Name and Site Address 10. US	EPA ID Number	in, πa _{ti} n → Decal N	0.500
ST. HIGHWAN RT (30		F. Transporter's Phone G. State Pacility's ID	(reconstruction)
DESPURTER NOT 06023 NUTO O	00385730 12 Conta		9540-2723
T1. US DOT Description (Including Proper Shipping Name, Hazard Class or Division ID Number and Packing Group)	, No	Total Type Quantity	Unit Wt/Vol Waste No.
PARMITAR AND WASTE LIQUE O N.O.S., 9	. 1		G
NA 3082 PETT (FOOL, FOOZ, FO	03) 001	TT X3583	6 FO 0 2
UP Addunal Depositions Read and Broken Toke ORIANC	PANENTS 1/2	K-Handling Codes for \	Wastes Listed Above
Suspensed Solies < 16 Dissolved Solies < 1% H	MTR >976	a 7 0 1	62
n ek enn mar Nest in tig en syndige en den er en fill en en en fill en		b	
15. Special Handling Instructions and Additional Information CONTACT # DWO 4002 Rec # 6076K6	431		
24 HR. Provide 908-462-1001			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this cons	ignment are fully and accurate	ely described above by pr	oper shipping name and are
classified, packed, marked, and labeled, and are in all respects in proper congovernment regulations.			
If I am a large quantity generator, I certify that I have a probram involved to reduce economically recognized to the parties of the problem	e the volume and toxicity of w	aste generated to the deg e dy mail as e to me whic	ree I have determined to be h minimizes the present and
the best waste management method that is available to me and that I can afford	enerator, l'have made a good f	aith effort to minimize my	
Robert M Shusko Rignay	out m B	resho	Month Day Year
17. Transporter 1 Acknowledgement of Receipt of Materials			
Printed/Typed Name Signatur PRED RARYA	Level Bar	77	Month Day: Year
18. Transporter 2 Acknowledgement of Receipt of Materials			
Printed/Typed Name Signatur	re		Month Day Year
19. Discrepancy Indication Space			
20. Facility Owner or Operator: Certification of receipt of hazardous materials covere Printed/Typgd Name Signature		noted in Item 19.	Month Day Year
DANIEL O. CAOMO	YUMU Si	Mamo	1090195

Appendix E





--- Approximate Scale: 1" = 150' ---

U.S. Army Corps Monitor Well (SR40/MW08)

Note: Base plan taken from excerpts of a draft report provided by U.S. Army Corps of Engineers to GEO Engineering on 9/6/95.

Scale was not provided in the draft report and has been estimated.

Appendix E

OFF-SITE INVESTIGATION

| GEO Engineering

Former Hexcel Facility Lodi, New Jersey

882780033

The following pages in Appendix E are copies of excerpts of the draft report provided by the U.S. Army Corps of Engineers.

		ST					SOIL BOR				PAGE		
	1 -		me	Saddle R		- 4 -	Boring N		SR 40	1		wate	r Level
		b No		03886-0		016	Surface I		26'	Da			Depth
)	-	e Dri		6 Oct. 199					Stem Auger		ring		16'
	Dri	ling (<u>Co.</u>	Testwell -		g	Completion I		32'	dril	ling		
	Dri	I For	eman	John Koza	ırski		Location	Pinto Pr	operty	_		 -	
		ged B		B. Zern	· · · · · · · · · · · · · · · · · · ·					ļ			
		No.	le Samp Type	le Sample Blow Counts (per 6 in.)	N Value		Visual	Descrip		Strati	% Rec	% RQI	Laboratory Test Results
			SS			$(2.5)^2 - 1$	on taken due t material is con aggregate.	to very hard a crete and bric	ugering first k rubble,				
] ;	-		00	40.5.2.2				, .,			, , , , , , , , , , , , , , , , , , ,		
	5 - - -	2	SS	42-5-3-2	8	pieces t (ML)	sy, loose, silty f hroughout, da	mp. Rock in	concrete tip of spoon.	*	<u>6"</u> 24"		
	10	3	SS	3-3-3-4	6	rounded brown s	wn, loose fine d gravel pieces ilty fine sand, g lamp. (SM/M	; transition at glass pieces, so	nd with some silt, 16' to dark ome fine		15" 24"		SM or SC (top)
	15	4	SS	2-2-1-1	3	sand wit wet med	own – black, lo h some silt, mo lium sand with Groundwater a	oist; transition trace of silt, s	at 16' to black,	-	24" 24"		SM (top)
P	20												
•	20 -	5	SS	4-13-19 -20	1	Brown, c pieces, fr in tip. (N	dense clayey sil ractured sands ML)	It with few fin- tone pieces (1	e gravel " dia.)	-	8" 24"		ML
-	 - -												
2	2 5			-									
ç.	_ ;.	لل	10 0 H	it Spoon I			MC - Moisture (

Sample type:SS-Split Spoon
ST-Shelby Tube
RC-Rock Core

*ASTM D-1586 Stabdard Penetration Test

SG-Specific Gravity

Laboratory Tests MC-Moisture Content
AL-Atterberg Limits
S-Sleve Analysis
SH-Sleve/Hydrometer Analysis
CCTU-Consolidated Undrained Triaxial
UCS-Unconfined Compression Strength

K-Hydraulic Conductivity

WE	STC	N			SOIL BORING LOG		PAGE	2 (OF 2	
	b Na		Saddle R		Boring No. SR 40	1	Groundwater Level			
Jo	b No	·	03886-0	<u>76-0</u>		Date Depth				
Dat	e Drill	ed	6 Oct. 199	3	Boring Method Hollow Stem Auger	Dur	During			
Dri	lling C	o	Testwell -	Crai	G Completion Depth 32'	drill	ling		<u>16'</u>	
Dri	ll Fore	man	John Koza	rski	Location Pinto Property					
Log	ged By	,	B. Zern							
Dept (feet	Sample No.	Sample Type	Blow Counts (per 6 in.)	N Value	Visual Description	Strati Eleva		% RQD	Laboratory Test Results	
25 - - - - - -	6	SS	18-11-14 -16	25	Coarse gravel with gray sandstone pieces, may be wash.		4" 24"			
30	7	SS	15-10-10	20	Coarse gravel with river gravel pieces (rounded) last 3". (GP)	,	10" 24"			
					END OF BORING	-				
-			•							

Sample type:SS-Split Spoon ST-Shelby Tube RC-Rock Core

Laboratory Tests MC-Moisture Content
AL-Atterberg Limits
S-Sleve Analysis
SH-Sleve/Hydrometer Analysis
tion Test
SG-Specific Gravity

C-Consolidation UU-Unconsolidated Undrained Triaxial

CTU - Consolidated Undrained Triaxial UCS - Unconfined Compression Strength K-Hydraulic Conductivity

TABLE C-1

VOLATILE ORGANIC COMPOUNDS GROUNDWATER AND SURFACE WATER SAMPLES

						*	VC	DLATILE OR	GANIC COM	POUNDS (u	g/L)						
SAMPLE ID	Chloro- methane	Bromo- methane	Vinyl Chloride	Chloroethane	Methylene Chloride	Acetone	Carbon Disuttida	1,1 -Dichloro- ethene	1,1 -Dichloro- ethane	1,2 -Dichloro- ethene (total)	Chiloroform	1,2 -Dichloro- ethane	2 -Butanone	1,1,1 -Tri- chlometrane	Carbon Tetrachloride	Vinyl Acetate	Bromodi- chloromethene
MW01-GW-R01	BAL	BAL	BAL	BRL	BRL	BRL	BAL	BRL	BRL	BRL	BRL	BBL	BRL	BAL	BBI	BBL	BAL
MW03-GW-R01	BRL	BRL	BAL	BRL	BAL	BAL	BRL	BRL	BRL	BAL	BAL	BAL	BAL	BRL	BAL	BRL	BAL
MW03-GW-D01	BRL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BRL	BAL	BAL	BAL	BAL	BAL	BAL	BRL	BAL
MW04-GW-R01_	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	8 _{RL}
MW05-GW-R01	BAL	BRL	BAL	BRL	BRL	BAL	BRL	BRL	BRL	BAL	BAL	BRL	BAL	BAL	BRL	BAL	BRL
MW06-GW-R01	BAL	BRL	68	BRL	BAL	BRL	BRL	BAL	5	10_	BRL	BRL	BAL	BRL	BRL	BRL	BRL
MW07-6W-R01	BAL	BRL	BRL	BAL	BAL	BAL	BRL	BRL	BAL	BRL	BRL	BAL	BAL	BRL	BAL	BRL	BRL
MW08-GW-R01	BRL	BAL	BAL	BRL	BAL	BRL	BRL	BRL	BRL	3 J (5)	BRL	BRL	BRL	BAL	BRL	BRL	BRL ®
MW08-GW-FB01	BAL	BAL	BRL	BRL	BAL	44	BRL	BRL	BRL	BRL	4 J (5)	BAL	BAL	BRL	BAL	BAL	BAL
MW04-GW-FB01	BAL	BAL	BAL	BRL	BRL	38	BAL	BRL	BRL	BRL	BRL	BRL	BAL	BRL	BRL	BAL	BRL
MW08-GW-TB01	BAL	BRL .	BRL_	BRL	BAL	BRL	BRL	BRL	BRL	BRL.	BAL	BRL	BAL	BRL	BRL	BAL	BRL
MW04-GW-TB01	BAL	BRL	BRL	BAL	BAL	BAL	BRL	BRL	BAL	BRL	BRL	BRL	BAL	BRL	BRL	BRL	BRL
SW01-SW-R01	BRL	BRL	BRL	BRL	BRL	41	BRL	BRL	BRL	BRL	BRL	BAL	BRL	BRL	BRL	BRL	BRL
SW02-SW-R01	BAL	BAL	BRL	BAL	BAL	BRL	BAL	BRL	BAL	BAL	BRL	BRL	BAL	BRL	BAL	BAL	BRL
SW03-SW-R01	BAL	BRL	BAL	BAL	BAL	BRL	BAL	BAL	BRL	BAL	BRL.	BAL	BAL	BAL	BAL	BRL	BRL
SW03-SW-TB01	BAL	BRL	BAL	BAL	BRL	BRL	BAL	BRL	BRL	BAL	BRL	BRL	BAL	BAL	BRL	BRL	BRL
	_	ŀ			Ī						}						

D-6

BRL - Below Reporting Limit

J - Result is an estimated value below the reporting limit (reporting limit follows in parenthesis)

TABLE C-1 VOLATILE ORGANIC COMPOUNDS GROUNDWATER AND SURFACE WATER SAMPLES

							VOL	ATILE OR	SANIC COM	POUNDS (L	Jg/L)						
SAMPLE ID	1,2 -DI- chioropropane	ds -1,3 -Di- chioropropene	Trichioro- ethene	Dibromo- chloromethane	1,1,2 -Tri- chloroethane	Benzene	trans -1,3 -Di- chloropropene	Bromoform	4- Methyl- 2- pentanone	2- Hexanone	Tetrachioro- etrene	1,1,2,2 -Tetra- chloroethane	Toluene	Chlom- benzene	Ethyl- benzene	Styrene	Xylene (total)
NUMBER OWN DOC	701	200	BRL	BBL	BRL	BAL	BBL		201	201	- 67	201	- 6.51				
MW01-GW-R01 MW03-GW-R01	BRL	BRL	BRL.	BRL	BAL	BAL	BAL	BRL BRL	BRL	BAL	BAL	BRL	BRL	BRL	BRL	BRL	BRL
MW03-GW-H01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BAL	BRL	BRL	BRL	BAL	BRL
MW04-GW-R01	BAL	BRL	BAL	BRL	BRL	BRI	BRI	BRL	BRL	BAL	4 J (5)	BRL	BRL	BRL	BRL	BAL	BRL
MW05-GW-R01	BRL	BRL	BRL	BRL	BAL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BAL	BRL	BRL.	BRL	BRL
MW06-GW-R01	BRL.	BRL	BAL	BAL	BRL	BAL	BAL	BRL	BAL	BRL	BAL	BRL	BAL	21	BAL	BRL	BRL
MW07-GW-R01	BRL	BAL	BAL	BRL	BRL	BAL	BAL	BRL	BAL	BRL	BAL	BAL	BRL	BRL	BRL	BRL	BRL
MW08-GW-R01	BRL	BAL	BAL	BRL	BAL	BRL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BAL	BRL	BAL
MW08-GW-FB01	BAL	BAL	BRL	BRL	8RL	BRL	BRL	BRL	BRL	BRL	BAL	BAL	BRL	BRL	BRL	BAL	BAL
MW04-GW-FB01	BRL	BAL	BAL	BRL	BRL	BAL	BAL	BAL	BRL	8RL	BRL	BAL	BRL	BRL	BAL	BRL	BRL
MW08-GW-TB01	BRL	BRL	BRL	BRL	BRL	. BAL	BAL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BAL	BRL
MW04-GW-TB01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BAL	BRL	BRL	BAL	BAL
SW01-SW-R01	BAL	BRL	2 J (5)	BRL	BAL	BRL	BRL	BRL	BAL	BAL	BRL	BRL	BAL	BAL	BRL	BRL	BRL
SW02-SW-R01	BRL	BRL	BAL	BRL	BRL	BRL	BAL	BRL	BRL	BRL	BAL	BAL	BRL	BRL	BRL	BRL	BRL
SW03-SW-R01	BRL	BAL	BRL	BAL	BRL	BRL	BRL	BAL	BRL	BAL	BRL	BRL	BRL	BAL	BRL	BRL	BRL
SW03-SW-TB01	BAL	BAL	BRL	BRL.	BAL	BAL	BRL	BRL	BRL	BAL	BAL	BRL	BRL	BRL	BAL	BRL	BRL

SEMIVOLATILE ORGANIC COMPOUNDS GROUNDWATER AND SURFACE WATER SAMPLES

Г								SEMI	OLATILE (ORGANIC COL	MPOUNDS	(ug/L)						
	SAMPLE ID	Phenol	bis (2 -Chloro- ethyl) ether	2 -Chloro- phenol	1,3 -Dichloro- benzene	1,4 -Dichloro- benzene	Benzył alcohol	1,2 -Dichloro- benzene	2 -Methyl- phenol	bis (2 -Chloro- isopropyl) ether	4 -Methyl- phenol	N -Nitroso-Di- n-propylamina	Hexachloro- ethane	Nitrobenzene	Is <i>o</i> phorone	2 -Nitro- phenol	2,4 -Dimethyl- phenol	Benzolc acid
F	MW01-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW03-GW-R01	BRL.	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW03-GW-D01	BRL	BRL	BRI.	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW04-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW05-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW06-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW07-GW-R01	BRL.	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Ł	MW08-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW08-GW-FB01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL.	BRL	BRL	BRL	BRL
L	MW04-GW-FB01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
L					ļ			l	<u> </u>	L	ļ	<u> </u>		ļ	1			
L	SW01-SW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	SW02-SW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
L	SW03-SW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
L		<u>. </u>	·	<u> </u>	1	1		ì	ì	ì	L	1	1	1	1	<u> </u>	.1	

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BRL - Below Reporting Limit

J - Result is an estimated value below the reporting limit (reporting limit follows in parenthesis)

TABLE C-2 SEMIVOLATILE ORGANIC COMPOUNDS GROUNDWATER AND SURFACE WATER SAMPLES

		i					SEMI	VOLATILE C	RGANIC CO	MPOUNDS (u	g/L)						
	SAMPLE ID	bis (2 -Chloro- ethoxy) methane	2,4 -Dichloro- phenol	1,2,4 -Tri- chlorobenzene	Naphthalene	4 -Chloro- aniline	Hexachloro- butadiene	4 -Chlore -3- methylphenol	2 -Methyl- nephthalene	Hexachioro- cyclopentadiene	2,4,6 -Trl- chlorophenol	2,4,5 -Trl- chlorophenol	2 -Chloro- naphthalene	2 -Nitro- aniline	Dimethyl- phthalate	Acenaphthylene	2,6 -DI- nitrotoluene
	MW01-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
_	MW03-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRI.	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL.
_	MW03-GW-D01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW04-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW05-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	_ BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW06-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW07-GW-R01	BRL	BRL	BRL	1 J (10)	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
M	MW08-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	***BRL	BRL	BRL	BRL
	MW08-GW-FB01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW04-GW-FB01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	SW01-SW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	SW02-SW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	SW03-SW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL

882780041

TABLE C-3 PESTICIDES, PCBs, AND HERBICIDES GROUNDWATER AND SURFACE WATER SAMPLES

		1						PES	STICIDES (u	g/L)							
	SAMPLE ID	Alpha-BHC	Beta-BHC	Delta-BHC	gamma-BHC (Lindane)	Heptachlor	Aldrin	Heptachlor epoxide	Endosulfan I	Dieldrin	4,4' -DDE	Endrin	Endosulfan ii	4,4' -DDD	Endosulfan sulfate	4,4' -DDT	Methoxychlor
F	MW01-GW-R01	BRL	BRL.	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW03-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW03-GW-D01	BRL	BRL	BRL	BRL	BRL.	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW04-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
ſ	MW05-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW06-GW-R01	BRL	BRL	BRL.	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW07-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Æ	MW08-GW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW08-GW-FB01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	MW04-GW-FB01	BRL	8RL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	SW01-SW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	SW02-SW-R01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
	SW03-SW-R01	BRL	BRL	BRL	BRL	BRL.	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
					1						1				1	T	

TABLE C-3 PESTICIDES, PCBs, AND HERBICIDES GROUNDWATER AND SURFACE WATER SAMPLES

BRL BRL BRL BRL	BRL BRL BRL BRL	BRL BRL BRL BRL BRL	BRL BRL BRL BRL BRL	BRL BRL BRL BRL BRL	2,4,5-TP BRL BRL BRL	BRL BRL BRL
BRL BRL BRL BRL	BRL BRL BRL BRL	BRL BRL BRL	BRL BRL BRL	BRL BRL BRL	BRL BRL	BRL
BRL I BRL BRL	BRL BRL BRL	BRL BRL	BRL BRL	BRL BRL	BRL BRL	BRL
BRL I BRL BRL	BRL BRL BRL	BRL BRL	BRL BRL	BRL BRL	BRL BRL	BRL
BRL	BRL					BRL
		BRL	BRI	DDI		
BRI				DICE	BRL	BRL
	BRL	BRL	BRL	BRL	BRL	BRL
BRL	BRL	BRL	BRL	BRL	BRL	BRL
BRL	BRL	BRL	BRL	BRL	BRL	BRL
BRL	BRL	BRL	BRL	BRL	BRL	BRL
BRL	BRL	BRL	BRL	BRL	BRL	BRL
BRL	BRL	BRL	BRL	BRL	BRL	BRL
BRL	BRL	BRL	BRL	BRL	BRL	BRL
BRL	BRL	BRL	BRL	BRL	BRL	BRL
BRL	BRL	BRL	BRL	BRL	BRL	BRL
	BRL BRL BRL BRL BRL BRL	BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL	BRL BRL BRL BRL BRL BRL	BRL BRL BRL BRL BRL BRL BRL BRL	BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL	BRL BRL

TABLE C-4

METALS AND CYANIDE

GROUNDWATER AND SURFACE WATER SAMPLES

Γ		-										TOT	AL METALS	AND C	YANIDE	(mg/L)									
	SAMPLE ID	Ag	ΑI	As	Ва	Ве	Ca	Cd	Co	Cr	Cu	Fe	Hg	K	Mg	Mn	Na	Ni	Pb	Sb	Se	τί	V	Zn	CN (Total)
F	MW01-GW-R01	0.030 U	23.5	0.0032	0.48	0.0050 U	184	0,010 U	0.022	0.043	0.053	50.4	0.00020 U	10.9	26.2	2.3	53.3	0.044	0.027	0.1014	0.0020 U	0.0020 U	0.061	0.12	0.010 U
+				0.0032 0.0020 U						0.020 U			0.00020 U	4.1	10.4	1.7					0.0020 U				0.0050 U
	MW03-GW-D01	0.030 U	0.20 U	0.0020 Ú	0.31	0.0050 U				0.020 U		6.5	0.00020 U	4.1	10.5	1.7	71.2				0.0020 U				0.0050 U
	MW04-GW-R01	0.030 U	0.26	0.0020 U		0.0050 U				0.020 U			0.00020 U	2.0 U	13.4	0.15	30.1	0.020 U			0.010 U				
L	MW05-GW-R01	0.030 U	1.4	0.0076		0.0050 U				0.020 U	0.021		0.00020 U	83.1	32.2	12.7		0.020 U			0.010 U				0.0087
١.	MW06-GW-R01	0.030 U		0,018		0.0050 U				0.020 U			0.00020 U	5.2	17.1	2.2	30.8	0.020 U			0.0020 U				
L	MW07-GW-R01	0.030 U		0.0020 U		0.0050 U				0.020 U			0.00020 U	7.3	6,2	1.1	38.3	0.020 U			0.0020 U			0.016	0.013
чŁ	MW08-GW-R01	0.030 U		0.0042				0.010 U			0.072		0.00020 U		26.3	2.4	31.3	0.033			0.0020 U				0.0050 U
L	MW08-GW-FB01					0.0050 U							0.00020 U			0.010 U					0.0020 U				
L	MW04-GW-FB01	0.030 U	0.20 U	0.0020 U	0.050 U	0.0050 U	0.12	0.010 U	0.020 U	0.020 U	0.020 U	0.030	0.00020 U	2.0 U	0.20 U	0.010 U	0.31	0.020 U	0,0020 U	0.10 U	0.0020 U	0.0020 U	0.010 U	0.010 U	0.0050
-	SW01-SW-R01	0.030 U	0.2011	0.0021	0.16	0.005011	60.0	0.010 11	0.020 11	0.02011	0.02011	0.54	0.00020 U	\	16.2	0.30	34 5	0.00011	0.0020 11	0 4011	0.0020 U	0.000031	0.01011	0.021	0.0050 U
ŀ	SW02-SW-R01			0.0020 U		0.0050 U				0.020 U			0.00020 U		7.7	0.064					0.0020 U				0.0050 U
ŀ	SW03-SW-R01			0.0020 U		0.0050 U				0.020 U			0.00020 U		16.7	0.12		0.020 U			0.0020 U				
r		T					,			T				1	1			T		1			1		

U - Compound was not detected at or above the reporting limit

Appendix F



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TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
DNAPL/LNAPL recovery (temporary)												
Recover water from basement Bldg. 1												
Obtain permits for sewer construction												
Stream-encroachment permit												
Local permits												
Construct new sewer line												
Conduct testing												
Conduct hydraulic testing												
Pilot test of recovery system	ļ											
Test ground water off-site												
Obtain off-site access or data												
Modify design of ground water recov. sys.			ļ									<u> </u>
Prep. design proposal for recov. sys.	<u> </u>		ļ									
NJDEP review of design proposal	<u> </u>	L	<u> </u>									
Install permanent recovery system												
Operate and maintain recovery system	ļ		ļ									
Evaluate need for DNAPL barrier	ļ											
Bedrock ground water invest. (MW-1)												
CLEANING OF SEWER LINE												
Cleanout/abandonment of sewer line												
Collect samples (and lab. analysis)												
Disposal of sludge/debris												
SOIL REMEDIATION *												
Soil investigation												
Prepare soil investigation rpt./work plan												
NJDEP review of work plan												
Conduct pilot test (incl. lab. analysis)	ļ					<u></u>			<u> </u>			
Design air sparging/vapor ext. system	ļ											
Obtain permits				<u></u>	<u> </u>	L						
Install soil remediation system						<u> </u>						
Operate and maintain system	ļ								<u> </u>			
SEDIMENT SAMPLING												
Collect samples (and lab. analysis) *												
REPORTING												
Prepare quarterly progress reports												
Prepare report of sediment sampling *												
Prepare final report												
NJDEP review and site inspection												
Case closure												

^{*} Due to Napp explosion, soil investigation and sediment sampling are being held in abeyance pending receipt of results from Napp.



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TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
DNAPL/LNAPL recovery (temporary)												
Recover water from basement Bldg. 1												
Obtain permits for sewer construction												
Stream-encroachment permit												
Local permits												
Construct new sewer line												
Conduct testing												
Conduct hydraulic testing												
Pilot test of recovery system												
Test ground water off-site												
Obtain off-site access or data												
Modify design of ground water recov. sys.	<u> </u>											
Prep. design proposal for recov. sys.												
NJDEP review of design proposal					L							
Install permanent recovery system												
Operate and maintain recovery system												
Evaluate need for DNAPL barrier					L							
Bedrock ground water invest. (MW-1)		<u></u> _										
CLEANING OF SEWER LINE												
Cleanout/abandonment of sewer line												
Collect samples (and lab. analysis)												
Disposal of sludge/debris												
SOIL REMEDIATION .												
Soil investigation												
Prepare soil investigation rpt./work plan												
NJDEP review of work plan												
Conduct pilot test (incl. lab. analysis)		ļ										
Design air sparging/vapor ext. system			<u> </u>	<u> </u>		<u> </u>						
Obtain permits				ļ								
Install soil remediation system	<u> </u>					<u> </u>						
Operate and maintain system	<u> </u>		<u> </u>	ļ <u>.</u>								
SEDIMENT SAMPLING												
Collect samples (and lab. analysis) *					L							
REPORTING												
Prepare quarterly progress reports												
Prepare report of sediment sampling *												
Prepare final report												
NJDEP review and site inspection	Ī-	T				Ī						
Case closure												

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TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION							·					
DNAPL/LNAPL recovery (temporary)			 									
Recover water from basement Bldg. 1												
Obtain permits for sewer construction			<u> </u>	<u> </u>								
Stream-encroachment permit			<u> </u>									
Local permits								l				
Construct new sewer line	<u> </u>		 							·		
Conduct testing									-			
Conduct hydraulic testing			 									
Pilot test of recovery system												
Test ground water off-site	 					<u> </u>						
Obtain off-site access or data			 	<u> </u>								
Modify design of ground water recov. sys.			 		 							<u> </u>
Prep. design proposal for recov. sys.		<u> </u>	-									
NJDEP review of design proposal			 									
	 	 	 	 		ļ						
Install permanent recovery system		unione de la companya de la company La companya de la companya de		sindiatio	500000							
Operate and maintain recovery system												
Evaluate need for DNAPL barrier	aatta Hast											
Bedrock ground water invest. (MW-1)												
CLEANING OF SEWER LINE				:								
Cleanout/abandonment of sewer line	<u></u>		<u> </u>						<u> </u>			l
Collect samples (and lab. analysis)												
Disposal of sludge/debris												
SOIL REMEDIATION *												
Soil investigation												
Prepare soil investigation rpt./work plan												
NJDEP review of work plan												
Conduct pilot test (incl. lab. analysis)												
Design air sparging/vapor ext. system												
Obtain permits												
Install soil remediation system												
Operate and maintain system												
SEDIMENT SAMPLING												
Collect samples (and lab. analysis) *			1									
REPORTING												
Prepare quarterly progress reports			1			Ť						
Prepare report of sediment sampling *	and a second second	<u> </u>	†			†	. neopolegy (d)	l		poperorana (h)		
Prepare final report			 				<u> </u>				-	
NJDEP review and site inspection	1		 									——
Case closure			 	 	†			 				
Due to Name and arion acil investigation a			1	<u> </u>		<u> </u>	L	<u> </u>	1	l	L	

Due to Napp explosion, soil investigation and sediment sampling are being held in abeyance pending receipt of results from Napp.



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TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
DNAPL/LNAPL recovery (temporary)												
Recover water from basement Bldg. 1												
Obtain permits for sewer construction												
Stream-encroachment permit												
Local permits												
Construct new sewer line												
Conduct testing												
Conduct hydraulic testing												
Pilot test of recovery system												
Test ground water off-site												
Obtain off-site access or data												
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Prep. design proposal for recov. sys.												
NJDEP review of design proposal												
Install permanent recovery system												
Operate and maintain recovery system												
Evaluate need for DNAPL barrier												
Bedrock ground water invest. (MW-1)												
CLEANING OF SEWER LINE												
Cleanout/abandonment of sewer line												
Collect samples (and lab. analysis)												
Disposal of sludge/debris												
SOIL REMEDIATION *					<u>-</u> .							
Soil investigation												
Prepare soil investigation rpt./work plan												
NJDEP review of work plan												
Conduct pilot test (incl. lab. analysis)												
Design air sparging/vapor ext. system												
Obtain permits												
Install soil remediation system												
Operate and maintain system												
SEDIMENT SAMPLING												
Collect samples (and lab. analysis) *												
REPORTING												
Prepare quarterly progress reports												
Prepare report of sediment sampling *												
Prepare final report												
NJDEP review and site inspection												
Case closure												

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TACK DECORPTION							-			40	44	
TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
DNAPL/LNAPL recovery (temporary)												
Recover water from basement Bldg. 1												
Obtain permits for sewer construction												
Stream-encroachment permit												
Local permits												
Construct new sewer line												
Conduct testing												
Conduct hydraulic testing												
Pilot test of recovery system												
Test ground water off-site												
Obtain off-site access or data												
Modify design of ground water recov. sys.												
Prep. design proposal for recov. sys.												
NJDEP review of design proposal												
Install permanent recovery system												
Operate and maintain recovery system												
Evaluate need for DNAPL barrier												
Bedrock ground water invest. (MW-1)												
CLEANING OF SEWER LINE												
Cleanout/abandonment of sewer line												
Collect samples (and lab. analysis)												
Disposal of sludge/debris												
SOIL REMEDIATION *												
Soil investigation												
Prepare soil investigation rpt./work plan												
NJDEP review of work plan				<u> </u>								
Conduct pilot test (incl. lab. analysis)					<u></u>							
Design air sparging/vapor ext. system		<u> </u>										
Obtain permits								<u> </u>				
Install soil remediation system			<u> </u>									
Operate and maintain system												
SEDIMENT SAMPLING												
Collect samples (and lab. analysis) *												
REPORTING												
Prepare quarterly progress reports												
Prepare report of sediment sampling *											{	
Prepare final report												
NJDEP review and site inspection]		
Case closure			<u> </u>	1								

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